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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/635,952	08/07/2003	Norishige Morimoto	JP920020098US1	1220

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EXAMINER
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PEARSON, DAVID J

ART UNIT	PAPER NUMBER
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2137

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/635,952	<b>Applicant(s)</b> MORIMOTO ET AL.	
	<b>Examiner</b> DAVID J. PEARSON	<b>Art Unit</b> 2137	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 11-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 11-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

1. Claims 1, 11, 16 and 18 have been amended. Claim 9 has been canceled.  
Claims 1-4 and 11-21 have been examined.

***Continued Examination Under 37 CFR 1.114***

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 01/30/2008 has been entered.

***Claim Objections***

3. Claims 16-21 objected to because of the following informalities:

Claims 16 and 18 have been significantly amended from the previous version of the claims dated 08/13/2007. However, only select portions of the newly added material has been underlined and none of removed portions have been documented with a strikethrough or double brackets. Additionally, claim 18 is amended, but has the status identifier of "Previously Presented." Examiner has examined the current version of the claims, but would like to remind Applicant of the need for proper amendment markings and status identifiers. Note MPEP 714 II C.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 11-15 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 11-15 are directed towards "a computer." However, the components of the computer (a selector, an information adding part, a fingerprint information generating part and a control part), appear to be entirely software components. Page 7, line 35 of the specification refers to these components as "virtual software blocks." As such, the "computer" appears to be computer program, per se and thus, functional descriptive material and non-statutory. Note MPEP 2106.01.

The 35 USC 101 rejection may be overcome by including a hardware component to the "computer." Figure 2 and corresponding description on page 7, lines 5-12 of the Specification include a CPU and main memory, which could be added to claim 11 to make the "computer" a statutory system.

***Claim Rejections - 35 USC § 103***

5. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over White et al. (U.S. Patent Application Publication 2003/0009669), and further in view of Ratnakar (U.S. Patent 6,522,766), Sakamoto et al. (U.S. Patent Application Publication 2003/0065747) and Shur (U.S. Patent 6,330,672).

For claim 1, White et al. teaches a contents server distributing digital contents via a network in response to an acquisition request from outside, said contents server comprising:

A contents storage part for storing a plurality of digital contents wherein a different digital watermark is embedded (note paragraph [0028]);

**A storage device containing embedment information** (note paragraph [0058]); and

an information adding part comprising:

i) a content selector for inputting digital watermark embedded digital contents Ce0 and Ce1, and selectively switching and outputting the digital contents (note paragraph [0030]), and

ii) controlling said content selector to output a partial set of contents Ce0(n) of contents Ce0 and a partial set of contents Ce1(n) of content Ce1 to generate digital watermark content Cf (note paragraph [0047]);

for synthesizing said digital contents for each specific acquisition requestor, adding to said digital contents information specified by a digital watermark that is different for each acquisition requester being embedded for each part of said digital contents (note paragraph [0047]); **said digital content information responsive to the embedment information** (note paragraph [0058]).

White et al. fail to teach:

a pseudo random number generator for controlling said content selector.

Ratnakar teaches:

a pseudo random number generator for controlling said content selector (note column 5, lines 29-32 and 36-39).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the watermarking of White et al. and the pseudo random number generator for controlling a content selector of Ratnakar. One of ordinary skill in the art at the time of the invention would have motivated to combine White et al. and Ratnakar because it would enhance the resistance of embedded information to unauthorized removal (note column 3, lines 61-65 of Ratnakar).

The combination of White et al. and Ratnakar differ from the claimed invention in that they fail to teach:

**Wherein Ce0 and Ce1 are calculated responsive to intensity of said different digital watermark.**

Sakamoto et al. teach:

A watermark responsive to intensity of said digital watermark (note paragraph [0218]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the combination of White et al. and Ratnakar and the watermark intensity of Sakamoto et al. It would have been obvious to combine White et al, Ratnakar and Sakamoto et al. because to apply the known technique of watermarks responsive to an intensity of Sakamoto et al. to the known watermarking device of White et al. and Ratnakar ready for improvement would yield the predictable results of different watermarks having varying intensities (note paragraph [0229] of Sakamoto et al.).

The combination of White et al., Ratnakar and Sakamoto et al. differs from the claimed invention in that they fail to teach:

**Wherein the embedded information is responsive to time of digital contents distribution.**

Shur teaches:

**Wherein the embedded information is responsive to time of digital contents distribution** (note column 8, lines 50-62).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the combination of White et al., Ratnakar and Sakamoto et al. and the time based watermark of Shur. One of ordinary skill in the art would have motivated to combine White et al., Ratnakar, Sakamoto et al. and Shur because it would

assist in recognizing a pirated work and the original from which the pirate copy was produced and the identity of the pirate who later makes an unauthorized copy of the original (note Abstract).

For claim 2, the combination of White et al., Ratnakar, Sakamoto et al. and Shur teaches claim 1, wherein said information adding part dynamically adds said information to said digital contents in response to an acquisition request for predetermined digital contents (note paragraph [0030] of White et al.).

For claim 3, the combination of White et al., Ratnakar, Sakamoto et al. and Shur teaches claim 1, wherein said information adding part forms a bit row with a digital watermark-embedded for each part of said digital contents and describes said information in said digital contents with said bit row (note paragraph [0028] of White et al.).

For claim 4, the combination of White et al., Ratnakar, Sakamoto et al. and Shur teaches claim 1, wherein said contents storage part stores said digital contents compressed in a predetermined compression format (note paragraph [0025] of White et al.), and said information adding part for, by synthesizing a plurality of said digital contents based on the codeword sequence offset information regarding said digital contents in accordance with said compression format, adding said information without unpacking said digital contents (note paragraph [0058] of White et al.).



6. Claims 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over White et al. (U.S. Patent Application Publication 2003/0009669), and further in view of Ratnakar (U.S. Patent 6,522,766), Sakamoto et al. (U.S. Patent Application Publication 2003/0065747) and Carroni et al. (U.S. Patent 6,804,779).

For claim 16, White et al. teach a method for adding information to digital contents by using a computer, said method comprising;

a first step of generating a plurality of digital watermark-embedded contents by embedding a different digital watermark in predetermined digital contents (note paragraph [0028] of White et al.) by:

i) inputting digital watermark embedded digital contents Ce0 and Ce1, and selectively switching and outputting the digital contents (note paragraph [0030] of White et al.), and

ii) controlling said content selector (note column 5, lines 29-32 and 36-39 of Ratnakar) to output a partial set of contents Ce0(n) of contents Ce0 and a partial set of contents Ce1(n) of content Ce1 to generate digital watermark content Cf (note paragraph [0047] of White et al.); and

synthesizing said digital contents for each specific acquisition requester, adding to said digital contents information specified by a digital watermark that is different for each acquisition requester being embedded for each part of said digital contents (note

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paragraph [0047] of White et al.) and of storing generated digital contents to a predetermined storage device (note paragraph [0028] of White et al.); and

a second step of, by reading out from said storage device a plurality of digital contents where a different digital watermark is embedded and switching and synthesizing said digital contents for each specific part, adding to said digital contents information specified by a digital watermark being embedded in each part of said digital contents (note paragraph [0047] of White et al.);

White et al. fail to teach:

a pseudo random number generator for controlling said content selector,

**wherein Ce0(n) and Ce1(n) are responsive to seed of the pseudo random number**

Ratnakar teaches:

a pseudo random number generator for controlling said content selector (note column 5, lines 29-32 and 36-39),

**wherein Ce0(n) and Ce1(n) are responsive to seed of the pseudo random number** (note column 5, lines 29-32).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the watermarking of White et al. and the pseudo random number generator for controlling a content selector of Ratnakar. One of ordinary skill in the art at the time of the invention would have motivated to combine White et al. and Ratnakar because it would enhance the resistance of embedded information to unauthorized removal (note column 3, lines 61-65 of Ratnakar).

The combination of White et al. and Ratnakar differ from the claimed invention in that they fail to teach:

**Wherein Ce0 and Ce1 are calculated responsive to intensity of said different digital watermark.**

Sakamoto et al. teach:

A watermark responsive to intensity of said digital watermark (note paragraph [0218]).

It would have been obvious to combine the combination of White et al. and Ratnakar and the watermark intensity of Sakamoto et al. It would have been obvious to one of ordinary skill in the art to apply the known technique of watermarks responsive to an intensity of Sakamoto et al. to the known watermarking device ready for improvement of White et al. and Ratnakar to yield the predictable results of different watermarks having varying intensities (note paragraph [0229] of Sakamoto et al.).

The combination of White et al., Ratnakar and Sakamoto et al. differs from the claimed invention in that they fail to teach:

**Said seed being responsive to identity of the specific acquisition requestor.**

Carroni et al. teaches:

**Said seed being responsive to identity of the specific acquisition requestor**

(note column 6, lines 27-33).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the combination of White et al., Ratnakar and Sakamoto et al. and the requester based seed of Carroni et al. It would have been obvious to combine White et al, Ratnakar, Sakamoto et al. and Carroni et al. because applying the known technique of a pseudo-random seed being responsive to a user identity of Carroni et al. to the watermarking device of White et al., Ratnakar and Sakamoto et al. would yield the predictable result of watermarked content that is traceable to that user who it was created for (note column 6, lines 35-40).

For claim 17, the combination of White et al, Ratnakar, Sakamoto et al. and Carroni et al. teaches claim 16, wherein said first step comprises compressing said generated digital contents, creating the pointer information pointing to a delimiter position in the part of said compressed digital contents (note paragraph [0025] of White

et al.), and storing it in said storage device, and said second step comprises reading out said pointer information from said storage device, synthesizing said digital contents based on said pointer information, and adding said information without unpacking the digital contents (note paragraph [0058] of White et al.).

7. Claims 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over White et al. (U.S. Patent Application Publication 2003/0009669), and further in view of Ratnakar (U.S. Patent 6,522,766) and Conover et al. (U.S. Patent 6,373,960).

For claim 18, White et al. teach a program product comprising a medium having computer readable code stored thereon for causing a computer to perform the data processing by controlling a computer, comprising:

a first process for reading out predetermined embedment information from a predetermined storage device (note paragraph [0028] of White et al.); and

a second process for acquiring a plurality of digital contents where a different digital watermark is embedded, selectively switching said plurality of digital contents for a specific part, based on said embedment information, and generating the digital contents describing said embedment information, using a bit sequence formed with a digital watermark-embedded in said part of said digital contents (note paragraph [0047] of White et al.) said process comprising adding information by a method comprising an information adding step comprising:

i) selecting content for inputting digital watermark embedded digital contents Ce0 and Ce1, and selectively switching and outputting the digital contents (note paragraph [0030] of White et al.), and

ii) selecting content to output a partial set of contents Ce0(n) of contents Ce0 and a partial set of contents Ce1(n) of content Ce1 to generate digital watermark content Cf (note paragraph [0047] of White et al.);

synthesizing said digital contents for each specific acquisition requester, adding to said digital contents information specified by a digital watermark that is different for each acquisition requester being embedded for each part of said digital contents (note paragraph [0047] of White et al.).

White et al. fail to teach:

a pseudo random number generator for controlling said content selector.

Ratnakar teaches:

a pseudo random number generator for controlling said content selector (note column 5, lines 29-32 and 36-39).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the watermarking of White et al. and the pseudo random number generator for controlling a content selector of Ratnakar. One of ordinary skill in the art at the time of the invention would have motivated to combine White et al. and Ratnakar

because it would enhance the resistance of embedded information to unauthorized removal (note column 3, lines 61-65 of Ratnakar).

The combination of White et al. and Ratnakar differ from the claimed invention in that they fail to teach:

**A third process for generating sequence offset information describing bit position for raw data blocks of said digital contents; said sequence offset information used in selecting said content to output said set of contents Ce0(n) of contents Ce0 and partial set of contents Ce1(n) of content Ce1 to generate digital watermark content Cf.**

Conover et al. teach:

**A third process for generating sequence offset information describing bit position for raw data blocks of said digital contents (note column 9, lines 38-44); said sequence offset information used in selecting said content to generate digital watermark content Cf (note column 9, lines 44-54).**

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the combination of White et al. and Ratnakar and the offset parameter of Conover et al. It would have been obvious to combine White et al., Ratnakar and Conover et al. because applying the known technique of a watermark entry point to compressed video of Conover et al. to the known watermarking device of

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White et al. and Ratnakar ready for improvement would yield the predictable results of watermarked video ready for broadcast (note column 9, lines 44-54 of Conover et al.)

For claim 19, the combination of White et al., Ratnakar and Conover et al. teaches claim 18, wherein said second process of said program performed by said computer comprises acquiring a plurality of digital contents where a digital watermark representing the bit information 0 is embedded, and a plurality of digital contents where a digital watermark representing the bit information 1 is embedded (note paragraph [0028] of White et al.), and selecting digital contents where a digital watermark corresponding to appropriate bit information describing said embedment information is embedded (note paragraph [0047] of White et al.).

For claim 20, the combination of White et al., Ratnakar and Conover et al. teaches claim 18, wherein said second process of said program performed by said computer comprises acquiring digital contents where a digital watermark representing the bit information 0 is embedded, digital contents where a digital watermark representing the bit information 1 is embedded, and digital contents where a digital watermark is not embedded (note paragraph [0028] of White et al.), and generating digital contents describing said embedment information, using said bit sequence with said digital watermark where a portion containing no bit information is set (note paragraph [0047] of White et al.).



For claim 21, the combination of White et al., Ratnakar and Conover et al. teaches claim 18, wherein said second process of said program performed by said computer comprises acquiring said digital contents compressed in a predetermined compression format (note paragraph [0025] of White et al.), and selecting said digital contents, based on the codeword sequence offset information regarding said digital contents in accordance with said compression format (note paragraph [0058] of White et al.).

### ***Allowable Subject Matter***

8. Claims 11-15 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

For independent claim 11, the prior art of record, alone or in combination, fails to teach a predetermined number of sets of Ce0 and Ce1, wherein the predetermined number is greater than one.

### ***Conclusion***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID J. PEARSON whose telephone number is (571)272-0711. The examiner can normally be reached on Monday - Friday, 8:00am - 4:30pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DJP

/Emmanuel L. Moise/  
Supervisory Patent Examiner, Art Unit 2137